SOCIETY OF PIPING ENGINEERS AND DESIGNERS

SPED Update February 2009

VOLUME 2, ISSUE 2 FEBRUARY 2009

SPECIAL POINTS OF INTEREST:

- **daratechPlant Conference, February 23-25, Hilton Americas, Houston, TX**
- **Hot Topics, NOV Fiber Glass Systems, February 26th, 6-9pm, HESS Club, Houston, TX**
- **SPAR 2009 March 30-April1, Hyatt Regency Denver, Denver, CO**

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And Now for Some Good News...

If you watch the news networks you might have a sense that the market is going down with no end in sight. Keep in mind that the price of oil for the past three weeks has stayed above $40 a barrel and even approached $48. In spite of the turmoil deals are being made, projects going through, and yes, even jobs are being created. With all the "Bad News" out there SPED thought you might want a little of the "Good News."

The Good News from Trend Lines Research
Trend Lines Monthly Report states that, "based on a probable rebound in global economies after Labor Day, the TrendLines Research 1-yr Target for USA Contract Crude Price is revised upward today from $37 to $50/Barrel."

And now the "Good News" from DownStreamToday.com
Jacobs Garners Oil Sands Project (Tuesday, February 03, 2009) Jacobs Engineering Group Inc announced Tuesday that it received a contract from a major Oil & Gas Company for engineering of a thermal facility in northeast Alberta, Canada.

BP Mulls New Rotterdam Refinery Unit - Source (Friday, January 30, 2009) Energy major BP is considering building a new production unit at its Rotterdam refinery in 2012-2014, a source familiar with its plans said on Friday.

Foster Wheeler To Supply Boiler for Sines Cogen Plant (Friday, January 30, 2009) Foster Wheeler has been awarded a contract for a heat recovery steam generator that will be integrated in a cogeneration plant that Repsol is constructing at the SINES Refinery in Portugal.

Iraqi Official Identifies Refinery Contractors (Monday, January 12, 2009) Technip SA, Stone & Webster Inc. and Foster Wheeler Ltd. won contracts to design four refineries in Iraq as the country works to end fuel shortages, Iraq's Deputy Oil Minister said Monday.

So what does this mean for you? Deals are getting done and work is still going on. You need to work hard, smart and hold on.

If you have your job experts say you should:

- **Keep up with new technologies through Professional Development**—Take the classes that you have been putting off. The person with the most skills stays the longest. Make yourself more valuable by training.
- **Network, network, network**—Don't eat lunch alone. Keep in the loop. Talk about what is happening. Read trending news. Know who is getting the contracts so you are always ready to act. Don't forget to go to meetings, ex. Hot Topics, to meet new people that can help you.
- **Have your resume up to date and don't forget a portfolio of work.** Resumes should always be ready to push "send" but don't forget a portfolio of your work and training certificates. Walk in ready to give that hiring manager your visual story by spending $5.00 on a black portfolio with drawings, certificates and maybe even a reference letter or two.

If you have lost your job, you should be doing all of the above and consider taking your resume to a headhunter. They may know who is looking faster than you. Recruiters are notorious for knowing who is hiring when companies don't want a flood of resumes but the best. As personnel are let go, keep in mind you may be on another manager's dream list. Tell your friends that you are looking. Certain managers may be waiting to snap you up when they get the go ahead so keep people posted!

Andrea Macejak, Editor, SPED Manager of Operations

Hot Topics Series: February 26th "Basic Engineering Design Principles Of Fiber Glass Reinforced Plastic (FRP) Piping Systems"

SPED will host Richard Heidinger, Vice President of Domestic Chemical Sales, NOV Fiber Glass Systems, for our February 26th Hot Topics Series, Houston, TX at the HESS Club 6-9pm. NOV Fiber Glass will be giving out its ***Success by Design*** Software **FREE** to all attendees.

Abstract

A brief discussion of materials and methods of manufacturing and physical properties of FRP piping systems will be followed by basic design principles for FRP piping systems. The four principles of handling thermal expansion and contraction, support spacing and basic support design will also be discussed. Engineering design software, ***Success by Design***, will be used to demonstrate these principles.

PRESENTER BIO

Richard Heidinger – VP of Domestic Chemical Sales, Fiber Glass Systems

Mr. Heidinger has 32 years experience in the Fiberglass Reinforced Plastics (FRP) industry. He a graduate of the University of Kansas and has been involved in adhesive and FRP pipe R&D; FRP pipe, fittings and adhesive manufacturing; field installation, engineering and project management; and sales and marketing. He has published several papers on FRP Piping Systems for NACE and is currently serving as Vice President – Project Management and Application Engineering.

NOV Fiber Glass Systems offers its proprietary engineering software, Success by Design free of charge. Success By Design quickly calculates flow properties such as GPM, friction losses and HP: support and guide spans for fiberglass piping systems. The program also features thermal analysis calculations on fiberglass piping systems as well as gas flow, water hammer and buoyancy calculations. Optimization of pipe sizing is quickly solved using *Success by Design*.

The benefits of using *Success By Design* are not only ease of use, but increased analysis accuracy. The software evaluates the fiberglass material properties at the actual operating temperatures, allowing a quick analysis of worst case scenarios.

NOV Fiber Glass Systems offers its proprietary engineering software, Success by Design FREE of charge. Success By Design quickly calculates flow properties such as GPM, friction losses and HP: support and guide spans for fiberglass piping systems.

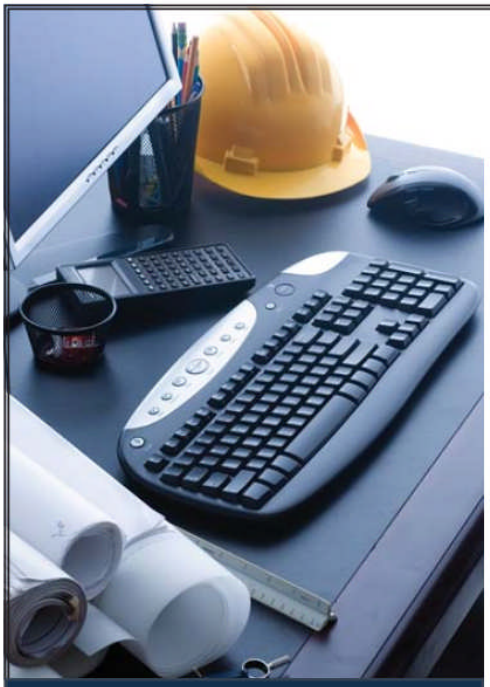
SPED Announces New Conference Discount for Members

SPED has been working to provide more services for its membership through cooperative partnerships with conferences, software companies and societies. "Our goal is to increase the value of membership so that it pays for itself." stated Andrea Macejak, SPED Manager of Operations. "SPED's role as a provider of training, certification and professional development to the Piping Designer, Piping Engineer and EPC Firms is rapidly expanding. It is only natural that we continue those services through partnerships with our corporate member vendors and beyond. We are in the business of promoting quality piping design. If they are talking about Piping Design we want to be there and we want you to be there."

SPED Members will obtain their discount code by contacting the SPED Office. Membership will be verified and the code can then be used when registering at SPED Partner events.

daratechPlant 09, February 23-25, Houston, TX, will offer SPED Members who are EPC and/or O/O registering for a 3 DAY conference pass the discounted rate of $795. This is a $200 savings off the $995 EPC & O/O rate. This registration entitles the attendee to all breakfasts, lunches, coffees/snacks and conference sessions and daratechPLANT 09 functions. For SPED Members who will only be able to attend for 1 day, daratechPlant offers a1 day pass (any day of your choosing) for the discounted rate of $495. This registration entitles the attendee to all breakfasts, lunches, coffees/snacks and conference sessions and daratechPLANT 09 functions.

SPED Members planning to attend SPAR 2009, March 30-April 1, Denver, CO, will receive a $100 discount on their registration. Members should also contact the SPED Office for the SPED SPAR 2009 discount code.



New project?
Staffing issues?

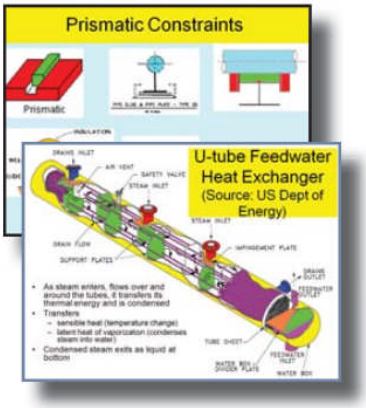
THE SPED PIPER VIDEO SERIES IS YOUR ANSWER.

"It's the Piper's resource for Information and Just-in-Time Training."

PIPER BOOTCAMP covers equipment and fittings necessary for routing pipeline from nozzle to rack to nozzle.

PROCESS PLANT LAYOUT covers knowledge and skills required for plant equipment and layout. Targets pipers already familiar with in-line pipe routing.

Version I contains original video recordings of live presentations by industry leaders.
Version II contains newly recorded videos with additional topics, and extended notes.



Designed for the new Piper and as a useful resource for experienced Pipers, the SPED Piper Video Series is considered the Industry Standard for piping training.

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For more information, call 832.286.3404 or email videos@spedweb.com

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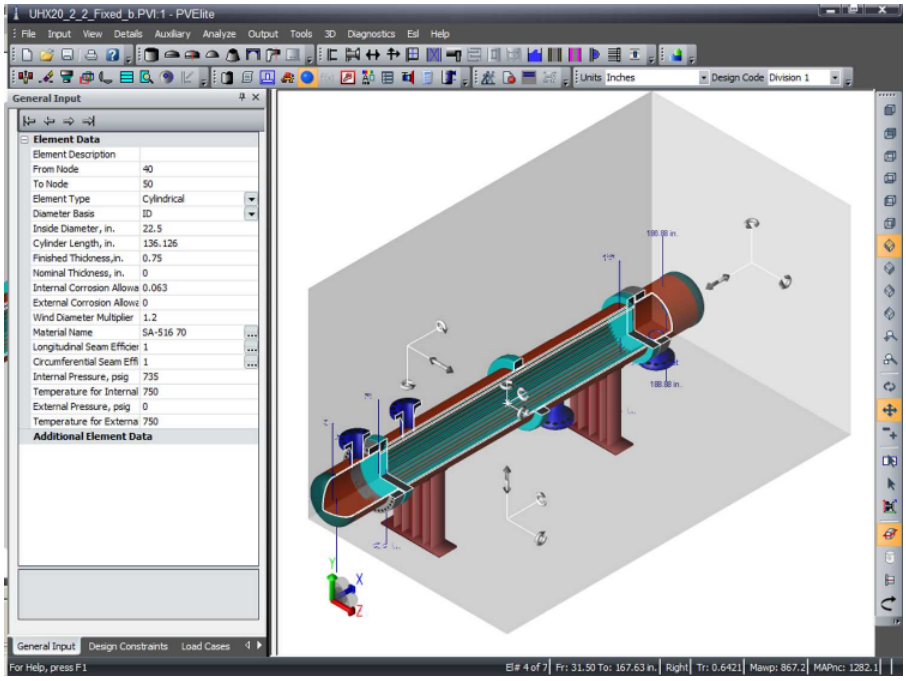
Image courtesy of COADE, Inc.

COADE releases PVElite 2009 with updated ASME vessel codes and other enhancements

New productivity features in PVElite 2009 include the modeling of round, circular and square vessel clips for different loads and the ability to use ANSI flanges for heat exchanger analysis.

HOUSTON, TEXAS – January 29, 2009 – COADE announced today the release of PVElite 2009, the company's popular software for pressure vessel and heat exchanger design and analysis. Code updates include ASME Section VIII Div. 2 2007 A-08 and its databases, the ASME Code 2008 updates, and British and EN code material updates. Also included are ASME VIII-1 Appendices 1-10 and 1-9 and improved ASME Division 1 Nozzle MAWP calculations. New Chinese structural steel capabilities have also been added.



New productivity features in PVElite 2009 include the modeling of round, circular and square vessel clips for different loads and the ability to use ANSI flanges for heat exchanger analysis. This latest edition also adds a flange design option, new MDMT calculation configurations, support lug analysis for hydrotest cases and updated and faster 3D graphics. Details on updates in PVElite 2009 can be found at http://info.coade.com/content/PVEliteRelease.

About COADE

COADE, Inc. is a provider of software for multiple plant design and engineering disciplines. COADE's aims are that design and engineering should share relevant information seamlessly, thereby maintaining accuracy and improving efficiency. COADE's product line conforms to those goals and includes CAESAR II, the world's most widely used pipe stress analysis software; PVElite for pressure vessel and heat exchanger design and analysis; CADWorx Plant Design Suite for intelligent plant design modeling, process schematics and automatic production of plant design deliverables; and TANK for the design and analysis of oil storage tanks. COADE, CAESAR II, CADWorx, PVElite, CodeCalc and TANK are registered trademarks or trademarks of COADE, Inc. For more information, visit www.coade.com.

Contacts:

Gary Carson 1.713.668.8550 gcarson@equamark.com

Vornel Walker 1.281.890.4566

Industry News Snapshots—More Good News

TECHNIP Awarded Contract For The Midor Refinery In Egypt Paris, February 4, 2009 Technip has been awarded by Middle East Oil Refinery (MIDOR) an EPC(1) contract, estimated at approximately €43 million, for the expansion of the delayed coking(2) unit of its refinery in Alexandria, Egypt. Engineering, procurement and supply of equipment and materials will be delivered on a lump sum basis; construction activities will be charged on a reimbursable basis. Technip's operating center in Rome, Italy, will execute the contract.

The delayed coking unit, based on ConocoPhillips technology, will have a production capacity of 30,000 barrels per day. It is scheduled to be delivered by the third quarter of 2010. This award attests to the successful collaboration between Technip and MIDOR, for whom the Group built the Alexandria refinery in the 1990's.

Historic CITGO Photo: 36 Inch Water Main

New Undergraduate Petroleum Program Approved—University of Houston Responding to the energy industry's demand for more petroleum engineers, the University of Houston Cullen College of Engineering is launching a new petroleum undergraduate program this fall. Just approved by the Texas Higher Education Coordinating Board, the bachelor's degree program will focus on petroleum engineering and geosciences, combining these fundamentals with economics, energy law and business. Read More

Historic CITGO Photo: Water Mains

Foster Wheeler's Alliance Contract with Shell in the UK Extended for a Further Two Years HAMILTON, Bermuda, Jan 21, 2009 (BUSINESS WIRE) -- Foster Wheeler Ltd. (Nasdaq: FWLT) announced today that its UK-headquartered subsidiary, Foster Wheeler Energy Limited, part of its Global Engineering and Construction Group, has been awarded a two-year extension of its existing alliance contract with Shell UK Oil Products Limited for the provision of basic design, engineering, procurement and construction management services at Shell's Stanlow Manufacturing Complex, UK.

SAIT Polytechnic Receives $1.4 Million Educational Software Grant from AVEVA: SAIT Introduces AVEVA PDMS into Its Corporate Training Program Calgary, Alberta - 26 January, 2009 - AVEVA (LSE: AVV), the leading provider of plant and marine design and engineering lifecycle solutions, has donated $1.4 million in AVEVA PDMS software to SAIT Polytechnic. This initiative will help to meet the challenges and requirements from owner operator and engineering firms, particularly with regards to ensuring their designers have the necessary skills and qualifications for the Alberta market.

Sweco Fab Inc., a Division of Piping Technology & Products, Inc., Designed and Fabricated an Exhaust Manifold that will be used with an Electric Generating System

This engine exhaust duct spool is fabricated from carbon steel and coated with specialized paint that is capable of resisting temperatures up to 1,000°F. It measures 6' long and connects two exhaust manifolds of 18" in diameter to a bottom flange of 50" in diameter. This engine exhaust duct spool will be covered with insulation and will be used to direct engine exhaust in a gas storage facility.

Historic CITGO Photo: Welding Cat Cracker

URS Awarded Security and Disaster Contract by Army Corps of Engineers SAN ANTONIO, TX — January 30, 2009 — URS Corporation is one of three firms that have been awarded an indefinite delivery/indefinite quantity contract by the U.S. Army Corps of Engineers (USACE) Omaha District to provide security, disaster, infrastructure and construction (SDIC) services worldwide.

Under the terms of the contract, URS will provide the USACE with time-sensitive, construction with incidental design services associated with security, natural and man-made disasters, and time-sensitive infrastructure repair, renovation, or construction. The Company can also provide incidental environmental support work, including environmental engineering and munitions response as necessary to support the construction activities at those sites. The contract covers a two-year base period and one three-year option.

SPED Calendar of Events-February—May 2009

Date	Day(s)	Time	Location	Cost	Membership
PDS I **Dates: Spring 2009 TBA**			TBA	$1095	Members Only
HOT TOPICS: Rick Heidinger, February 26th **"Basic Engineering Design Principles of Fiberglass Reinforce Plastic (FRP) Piping Systems"**	TH	6-9pm	HESS Club Houston, TX	$35 $25 $10	Non-Member Member Student w/valid ID
daratechPlant Conference, February 23-25, 2009 **www.daratechplant.com**	M-W		Hilton Americas Houston, TX		**SPED Discount** Call SPED Office
SPAR 2009 March 30-April1 **http://sparllc.com/spar2009.php**	T,W		Hyatt Regency Denver Denver, CO		**SPED Discount** Call SPED Office
FIATECH 2009 Technology Conference and Showcase, April 6-8 **www.fiatech.org**	M-W		Green Valley Ranch Henderson, NV		
PlantSuccess 2009 Gulf Coast, April 16th **http://www.plantsuccess.com/**	TH		Hilton Houston NASA Clear Lake		
2009 Offshore Technology Conference, May 4-7 **http://www.otcnet.org/2009/**	M-TH		Reliant Park Houston, TX		
2009 SPED Annual General Business Meeting and Corporate Member Showcase **November 2009**			TBA		

HOT TOPICS

February 26, 2009

at the Hess Club, 5430 Westheimer Road • 713-627-2283

"Basic Engineering Design Principles of Fiberglass Reinforce Plastic (FRP) Piping Systems"

Rick Heidinger
Vice President of Domestic Chemical Sales

NOV Fiber Glass Systems

6:00 P.M. Cash Bar
6:30 P.M. Dinner
7:00-8:00 P.M. Lecture

$25 Members
$35 Non-Members
$10 Students

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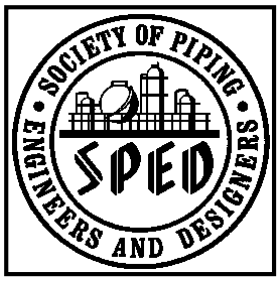
Purchase your tickets by February 23, 2009 at www.spedweb.com



Executive Director's Notes, Dr. William Beazley

Where next for Piping Design?

Piping Design is again going through a wrenching change similar to that of the 1980's oil shock. During that time, an irreversible change took place in that piping drafters moved to Computer Aided Design (CAD). Prior to that time, drawings contained the design data for the process plant. After the oil shock died down, their focus changed forever to creating a data-rich MODEL of the plant and that model eventually became the data of record of the design data. Drafters who refused to change, had to retire from active design work or move up or out of the way of the CAD-literate designers that followed behind.

Today, however, another change is underway: Raising the bar on new hire knowledge and skills. There is a growing recognition that Piping Designers possess a unique body of knowledge above and beyond the mere routing of pipe in a Plant CAD system. There is value in routing piping and placing equipment to favor fabrication, construction, operations and maintenance. It is clearly not enough to get a two year AAS degree in CAD to get the recognition and compensation that piping design is known for. The only way to get this additional knowledge is through advanced training and time on task.

SPED has answered part of the need with its Professional Piping Designer Certification program, training, professional development and other initiatives. Our efforts have benefited thousands of pipers over the years.

Still one barrier to advancement remains: Accumulating the years of experience that is so prized by pipers, employers and clients, alike. This remains a huge barrier to entry into the highest levels of the profession.

Unfortunately for some, it remains a barrier to any entry at all. As the EPC firms of high value added economies find they must show resumes of exceptional talent to land the best jobs, newly hired employees are expected to charge to jobs immediately or soon after. Few firms will recruit "entry level" pipers and be willing to train, assess and mentor new talent up to levels demanded by clients for their fast track jobs. Most of the classical entry pathways, scrubbing ISOs, P&IDs, etc., have been outsourced to other countries as part of the detailed design. We are losing our main vehicle for passing on experience from one generation to the next.

What can we do? The British still use a kind of white collar apprentice program to train Piping Designers. Aspiring piping designers receive concentrated training, then work inside companies with outside mentors. The latter status is called "Day Release," because trainees take one day off a week to attend classes.

I trained Piping Engineers under a similar scheme in Malaysia. New engineering graduates were trained in training centers for 4-6 months and then sent to EPC firms to complete their training over the remainder of the year.

Both plans put a new piper to work inside a company on a company paid reduced stipend or salary. This makes it less painful to take on possible talent. Even if the candidate is not permanently absorbed in the organization, they then have some serious work experience inside a major company.

The time may be here for the US to consider a similar plan to help newbies jump up the ladder in this profession. Such a program could give new recruitments a warm start as big project arrive on the scene. It is worth considering.

Bill Beazley